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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,306	07/09/2003	John E. Johnson	717119.336	1305
27128	7590	12/06/2005	EXAMINER	
BLACKWELL SANDERS PEPER MARTIN LLP			PARSLEY, DAVID J	
720 OLIVE STREET				
SUITE 2400			ART UNIT	
ST. LOUIS, MO 63101			PAPER NUMBER	
			3643	

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/604,306		JOHNSON, JOHN E.	
	Examiner		Art Unit	
	David J. Parsley		3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10-14-05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Amendment

1. This office action is in response to applicant's amendment dated 10-14-05 and this action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Referring to claim 7, applicant claims two different embodiments being the cutting bit embodiment and the pull chain embodiment in combination but does not describe in the specification if these embodiments are combinable or how these embodiments are combinable.

Referring to claim 8, applicant claims two different embodiments being the cutting bit embodiment and the high-pressure nozzle embodiment in combination but does not describe in

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the specification if these embodiments are combinable or how these embodiments are combinable.

Claims 9-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of “a semi-flexible worm feed line” as seen in line 6 of claim 9 and in line 4 of claim 12 is not described in the specification.

Claims 8 and 14-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of retracting the nozzle within the vacuum casing and extending the nozzle beyond the casing as seen in lines 9-10 of claim 8, in lines 9-10 of claim 14 and in lines 9-10 in claim 17 is not described in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claim 18 is rejected under 35 U.S.C. 102(a) as being anticipated by JP Patent No. 2002-176907. The Japanese patent discloses an apparatus for removing spinal cord material from a carcass of an animal comprising, an elongated hollow flexible tube – at 21, forming a vacuum casing – see the English abstract, open on a leading end – see for example figures 2a1-2c2, a substantially hollow cutting blade implement – at 22 or 23 or 24, having an open leading blade end – see proximate 22a or 23a or 24a in figures 2a1-2c2, the leading blade end having a sharpened circumferential leading edge – see at 22 or 23 or 24 in figures 2a1-2c2, about the opening, the cutting blade having a distal open blade base end fixedly attached to the leading end opening of the leading end of the tubing about and extending from the rim of the opening of the tubing – see at 22 or 23 or 24 in figures 2a1-2c2, operable to allow the tube and blade to rotate together and for engaging and breaking down a spinal cord material sufficient for vacuuming through the hollow tube – see for example figures 1-2 and the English abstract where the device is manually operated as seen in figure 1 and thus the tube and the blade which is directly and fixedly attached to the tube are capable of being rotated together by the user of the device to remove the spinal cord material.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE Patent No. 19757745 in view of U.S. Patent No. 5,167,568 to Esbroeck et al.

Referring to claims 1 and 6, the German patent discloses an apparatus for removing spinal cord material from a carcass of an animal comprising, an elongated flexible tube – at 9, forming a vacuum casing – see figure 1, a flexible rotatable shaft – at 7,8,12, extending through the tube and captured therein – see figure 1, and a cutting bit – at 1,2, attached to a tip end of the shaft – see figure 1, and extending from the tube operable for engaging and breaking down a spinal cord material sufficient for vacuuming – see for example figures 1-2 and the English abstract. The German patent further discloses the rotatable shaft – at 7,8,12, extends through the vacuum casing extending the cutting bit – at 1,2, beyond the vacuum casing – see for example figure 1. The German patent does not disclose the rotatable shaft is adapted to retract the cutting bit in the vacuum casing and extend the cutting bit forward of the vacuum casing. Esbroeck et al. does disclose the rotatable shaft – at 6, is adapted to retract the bit – at 46, into the vacuum casing – at 44 and extend the bit – at 46 forward of the casing – see for example figures 5-6. Therefore it would have been obvious to one of ordinary skill in the art to take the device of the German patent and add the rotatable shaft of Esbroeck et al., so as to allow for the rotatable shaft to be automatically controlled.

Referring to claim 3, the German patent as modified by Esbroeck et al. further discloses the cutting bit is a drill style bit – see for example figures 1-2 of the German patent.

Referring to claim 4, the German patent as modified by Esbroeck et al. further discloses the elongated flexible tube – at 9, is in communication with a vacuum source – see for example figures 1-2 and the English abstract of the German patent.

Referring to claim 5, the German patent as modified by Esbroeck et al. further discloses the rotatable shaft is operably attached to a rotation drive for effecting rotation of the shaft and bit – see for example figures 1-2 and the English abstract of the German patent.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the German patent as modified by Esbroeck et al. as applied to claim 1 above, and further in view of U.S. Patent No. 1,900,267 to Youman. The German patent as modified by Esbroeck et al. does not disclose the cutting bit is an auger style bit. Youman does disclose the cutting bit is an auger style bit – at 15-19. Therefore it would have been obvious to one of ordinary skill in the art to take the device of the German patent and add the cutting bit being an auger style bit of Esbroeck et al., so as to allow for the device to be movable into the tissue of the animal carcass during cutting.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the German patent as modified by Esbroeck et al. as applied to claim 6 above, and further in view of U.S. Patent No. 6,126,535 to Post. The German patent as modified by Esbroeck et al. does not disclose inserting a feed line through the spinal canal of an animal carcass where the feed line has a pull chain attached to a trailing edge of the feed line, and pulling the feed line and pull chain attached thereto through the spinal channel where the pull chain has linkages of spiral spring cutting head implements. Post does disclose inserting a feed line – at 13, through the spinal canal of an animal carcass where the feed line has a pull chain – at 14-23, attached to a trailing edge of the feed line, and pulling the feed line and pull chain attached thereto through the spinal channel where the pull chain has linkages of spiral spring cutting head implements – proximate 15 and/or 18 – see for example figure 2A. Therefore it would have been obvious to one of ordinary skill in the art to

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take the method of the German patent as modified by Esbroeck et al. and add the feed line and pull chain of Post, so as to allow for proper gripping of the spine of the animal carcass.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the German patent '745 as modified by Esbroeck et al. as applied to claim 6 above, and further in view of DE Patent No. 19824966. German patent '745 as modified by Esbroeck et al. further discloses inserting an elongated tube vacuum casing – at 9, through the spinal channel – see figure 1 of the German patent '745, of a carcass, where the elongated flexible tube has a flexible high pressure tubing – at 11 and/or 16, extending therethrough and a high pressure nozzle – at 3,4, in fluid communication with the high pressure tubing – see figure 1 of the German patent '745, and attached to one end of the high pressure tubing – see figure 1 of the German patent '745, the high pressure tubing for engaging and disengaging a spinal cord in the spinal channel – see for example figure 1 of the German patent '745. The German patent '745 as modified by Esbroeck et al. further discloses retracting in and extending through the vacuum casing – see at 46 in figures 5-6 of Esbroeck et al. The German patent '745 as modified by Esbroeck et al. does not disclose the nozzle emits a high pressure jet spray at a pressure sufficient to break down spinal cord material for vacuuming out and applying a vacuum to the flexible tube vacuum casing for extracting the spinal cord material. German patent '966 does disclose the nozzle – at 3,4, emits a high pressure jet spray at a pressure sufficient to break down spinal cord material for vacuuming out and applying a vacuum to the flexible tube vacuum casing for extracting the spinal cord material – see for example figures 1-3 and the English abstract. Therefore it would have been obvious to one of ordinary skill in the art to take the device of the German patent '745 as modified by Esbroeck et al. and add the jet spray of German patent '966, so as to allow for

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removal of the spinal cord from the animal carcass without chipping or damaging the bones of the spine.

Claims 9-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,126,535 to Post in view of U.S. Patent No. 4,149,544 to Baraut.

Referring to claims 9 and 12, Post discloses an apparatus for removing spinal cord material from a carcass of an animal comprising, a pull chain – at 14-23, having linkages of spiral spring cutting head implements – proximate 15 and 18, and a worm feed line – at 13, attached to an end of the chain for insertion through the spinal canal and pulling the pull chain through – see for example figure 2A. Post does not disclose the spiral spring varies in diameter along its length thereby having differing diameter springed cutting edges. Baraut does disclose the spiral spring – at 2-4, varies in diameter – see figure 1, where the bulge – at 3 increases the diameter at a portion of the spring element, along its length thereby having differing diameter springed cutting edges – see for example figure 1. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Post and add the springed cutting element of Baraut, so as to allow for the cutting implement to be biased into differing cutting orientations.

Referring to claim 10, Post as modified by Baraut further discloses the pull chain has linkages of spiral spring cutting head implements with differing diameter cutting edges – see for example at items 2-4 in figure 1 of Baraut.

Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Post as modified by Baraut as applied to claims 9 or 11 above, and further in view of U.S. Patent No. 4,608,732 to Hill et al. Post as modified by Baraut further discloses a line drive for pulling the feed line and chain through the canal – see for example figure 2A of Post. Post as modified by

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Baraut does not disclose a sanitization system having high-pressure spray nozzles proximately disposed to the pull chain after it exits the carcass operable to spray sanitizer solution on the pull chain for sanitizing and removing debris. Hill et al. does disclose a sanitization system having high-pressure spray nozzles – at 60, proximately disposed to the pull chain after it exits the carcass operable to spray sanitizer solution on the pull chain for sanitizing and removing debris – see for example figure 1. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Post as modified by Baraut and add the sanitization system of Hill et al., so as to allow for the mechanical components of the device to be clean from any contaminants to prolong the active life of the device.

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE Patent No. 19824966 in view of Esbroeck et al.

Referring to claims 14 and 17, the German patent '966 discloses an apparatus/method for removing spinal cord material from a carcass of an animal comprising, an elongated flexible tube – at 0, forming a vacuum casing and a flexible high-pressure tubing – at 2,5, extending through the elongated flexible tube and captured therein for channeling and delivering fluid under pressure to a high pressure nozzle – at 3,4, for emitting a jet spray of fluid sufficient to break down a spinal cord material for vacuuming through the elongated flexible tube – at 5, where the flexible high pressure tubing is adapted to extend through the vacuum casing for engaging and disengaging the spinal cord with the jet spray – see for example figures 1-4 and the English abstract. The German patent '966 does not disclose the flexible high-pressure tubing is adapted to retract in the vacuum casing and extend out of the casing. Esbroeck et al. does disclose the flexible high pressure tubing – at 46, is adapted to retract in the vacuum casing – at 44 and

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extend out of the casing – at 44 – see for example figures 5-6. Therefore it would have been obvious to one of ordinary skill in the art to take the device of the German patent and add the retractable element of Esbroeck et al., so as to allow for the device to be automatically controlled.

Referring to claim 15, the German patent '966 as modified by Esbroeck et al. further discloses a vacuum source – see for example figure 2, in communication with the elongated flexible tube forming a vacuum – see for example figures 1-3 and the English abstract of the German patent.

Referring to claim 16, the German patent '966 as modified by Esbroeck et al. further discloses a high pressure fluid source – see figure 2, in fluid communication with the high pressure tubing – see for example figures 1-4 and the English abstract of the German patent.

Response to Arguments

5. Regarding the 35 U.S.C. 112 1st paragraph rejections to claims 7-8, applicant does not disclose in the specification or show in the drawing figures that the multiple devices of the different embodiments of the invention can be combined to form a method or apparatus including any combination of these embodiments. Applicant discloses each process/apparatus of each embodiment separately but not in combination. Therefore the non-enablement rejection stands as set forth in paragraph 2 above.

Regarding the 35 U.S.C. 112 1st paragraph rejections to claims 9-13 applicant discloses in paragraph [0009] that a semi-flexible material can be inserted in the spinal column of the carcass.

The term “material” is a broad term which can encompass a worm-feed line or any other physical structure comprising a semi-flexible material. Therefore, the claimed limitation of the semi-flexible worm feed line is lacking in applicant’s written description.

Regarding the 35 U.S.C. 112 1st paragraph rejections to claims 8 and 14-17, applicant discloses in paragraph [0025] of the specification that a catheter is retracted and extended from a vacuum casing. The claims state that a high pressure nozzle is retracted and extended from the vacuum casing. A catheter is not deemed to be an equivalent structure to that of a high pressure nozzle, therefore the rejection stands.

Regarding the prior art rejection of claim 18, the Japanese reference JP 2002-176907 does disclose a hollow tubular cutting blade – at 22-24, having a sharpened circumferential leading edge – see for example figures 2a1-2c2 where the blade has an open interior cavity as seen with the dotted lines in figures 2a1,2b1,2c1, and the circumferential leading edge of the blade is sharpened as seen at 24a-24b in figures 2c1,2c2.

Regarding the prior art rejections of claims 1 and 3-6, the Esbroeck et al. reference US 5167568 discloses the use of a cutting device in combination with a vacuum to remove tissue/organs from an animal carcass. A retractable member – at 46, is movable into and out of a casing – at 44, and a vacuum from pump – at 34 is formed inside the retractable member and the casing – at 44 and 46 as seen in figure 5. Since a vacuum is formed in the interior of item – 44 then item – 44 can be construed as a casing and item – 46, facilitates the cutting and removal of the animal tissue/organs as seen in figure 5 and column 6 lines 30-68, column 7 lines 1-68 and column 8 lines 1-5.

Regarding the prior art rejections of claims 7-8, the Post reference US 6126535 discloses a feed line – at 13-23, inserted into the spinal column of an animal carcass as seen in figure 2a and column 7 lines 54-64.

Regarding the prior art rejections of claims 9-13, the Post reference discloses inserting a feed line – at 13-23 into the spinal column as seen with reference to claims 7-8 above. Further, the Baraut reference is deemed analogous art in that it is an apparatus that operates in a similar manner in that it moves a cutting/stripping element in a vertical direction to remove/cut material as seen in figure 3, with the motivation to combine the Post and Baraut references found above in paragraph 4 of this office action.

Regarding the prior art rejections of claims 14 and 17, the Esbroeck et al. reference does disclose a retractable element located in a casing, see the response to arguments to claims 1 and 3-6 above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Parsley whose telephone number is (571) 272-6890. The examiner can normally be reached on Monday-Friday from 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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12/1/05